



Application #77

## PART A – COVER PAGE

STATE WATER RESOURCES CONTROL BOARD  
SFY 2002 Costa-Machado Water Act of 2000  
CALFED Watershed Program

Application No. 77

PROJECT TITLE: **The Yuba River Citizen Monitoring Program Phase II: Development of Models and Protocols for citizen-based monitoring efforts throughout the CALFED Solution Area**

Project Region Nevada  
Multi-regional Yuba  
Project Sierra  
Placer Indicate RWQCB #: 5  
Indicate RWQCB #s: \_\_\_\_\_

PROJECT DIRECTOR (Ms., Mr., Dr.): **Ms. Janet Cohen** **May 31, 2002**  
PRINT DATE

LEAD APPLICANT OR ORGANIZATION: **South Yuba River Citizens League**

TYPE OF AGENCY:

Municipality \_\_\_\_\_ Local Agency \_\_\_\_\_ \*Nonprofit (non-landowner) ☒

Nonprofit (landowner) \_\_\_\_\_ Local Public Agency \_\_\_\_\_

STREET ADDRESS: **202 North Pine Street**  
CITY: **Nevada City** Zip **95959**  
P.O. BOX: \_\_\_\_\_ Code: \_\_\_\_\_  
\_\_\_\_\_ Zip \_\_\_\_\_  
\_\_\_\_\_ Code: \_\_\_\_\_  
COUNTY **Nevada County**  
STATE: **California**



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PHONE NO.: 530.265.5961 x207 FAX NO.: 530.265.6232E-MAIL ADDRESS: janet@syrcl.org FEDERAL TAX ID. NO.: 68-0171371PROJECT TYPE: Watershed Protection Program. Meets objectives of 79080(c)(4). Monitor Water Quality Conditions and Assess the Environmental Health of Watersheds.LEGISLATIVE INFORMATION  
Senate District 01 Assembly District 3 & 4  
United States Congressional District 2 & 4

CALFED, RWQCB, or SWRCB STAFF CONTACTED REGARDING THIS PROPOSAL:

Contact: Holly Sheridan Contact: Gaylon Lee  
Phone No.: 916.341.5488 Phone No.: 916.341.5478  
Dates contacted: 05.15.02 Dates contacted: 05.29.02

PRIMARY COOPERATING ENTITIES:

**Please find full list of 35 cooperators as attachment**Entity Name: California State Parks  
Role/Contribution to Project: Technical/Partner  
Contact Person: Ray Patton Phone No.: 530.273.3884  
E-mail address: rpatton@jps.netEntity Name: California Department of Fish and Game  
Role/Contribution to Project: Technical/Partner  
Contact Person: John Nelson Phone No.: 916.358.2944  
E-mail address: jnelson@dfg.ca.gov

WATERBODY/WATERSHED

(Include Catalog Number in Section 18 of the ARD): Lower Yuba 18020107  
Upper Yuba 18020125GPS COORDINATES FOR PROJECT LOCATION, IF AVAILABLE: N/A

FISCAL SUMMARY:

<b>Proposition 13 Funds Requested</b>	<u>\$215,005</u>
Other Project Funds	<u>\$198,210</u>
Total Project Budget	<u>\$413,215</u>



## CERTIFICATION

Please read before signing.

I certify under penalty of perjury that the information I have entered on this application is true and complete to the best of my knowledge and that I am entitled to submit the application on behalf of the applicant (if the applicant is an entity/organization). I further understand that any false, incomplete, or incorrect statements may result in the disqualification of this application. By signing this application, I waive any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent provided in this RFP.

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Applicant Signature

Date

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Printed Name of Applicant

## PART B – PROJECT NARRATIVE

### 1. TITLE

The Yuba River Citizen Monitoring Program: Utilizing a model citizen-based monitoring program to develop protocols and standards for application to other volunteer-based efforts throughout the CALFED Solution Area.

### 2. PROJECT SUMMARY

This proposal requests funding to implement Phase II of the Yuba River Citizen Monitoring Project. Phase II includes:

- The continuation of baseline water quality monitoring at 21 original data sites throughout the entire watershed for an additional 24 months;
- The addition of 8 new data sites chosen to reflect water quality concerns of the Regional Water Quality Control Board;
- Addition of sampling for lead, chromium, enterococci bacteria, turbidity, nitrogen and phosphorus;
- The purchase of monitoring equipment to complete two additional monitoring years;
- The production and distribution of the 2<sup>nd</sup> *State of the Yuba Watershed Assessment*;
- The active management of 65 trained citizen monitors;
- The training and management of an additional 20 citizen monitors;
- The continued collection of data to assess and address enterococci contamination of the South and Middle Yuba Rivers;
- The integration of water quality data and watershed assessment data into the Yuba River Watershed Management Plan, the Yuba River Fisheries Technical Work Group, the Yuba-Feather Flood Reduction Work Group, the Yuba Watershed Council, and the re-licensing of federally licensed hydroelectric facilities on the Yuba River.

Using the Yuba River Citizen Monitoring Program as a ***success model***, Phase II of this Program will also serve to expand the capacity of other volunteer monitoring programs by:

- Developing the curriculum and materials for a *Citizens Monitoring Academy* to assist other citizen-based water quality monitoring efforts throughout the CALFED Solution Area in the training, management and retention of citizen volunteers;
- Developing the framework for reproducible watershed-wide citizen monitoring efforts in neighboring watersheds;
- Collaborating with the State Water Resources Control Board and the Regional Water Quality Control Board in developing a protocol for data reporting between citizen-based water quality monitoring efforts and state agencies.

### 3. EXISTING PROGRAM DESCRIPTION

The Yuba River Citizen Monitoring Project is a collaboratively developed watershed-wide monitoring and assessment program initially funded by the State Water Resources Control Board

with Proposition 204 funds. It is now the largest scientific volunteer monitoring program in the Sierra Nevada.

#### **a. Purpose Integrates with CALFED Objectives**

The Yuba River Citizen Monitoring Project has a single mission – to educate and involve a “community of stewards” who produce technically and scientifically valid data in support of the objectives of the community, CALFED, the State Water Resources Control Board and the Regional Water Quality Control Board. These include but are not limited to:

- The introduction of salmon and steelhead above Englebright Dam on the Yuba River;
- The restoration of salmon and steelhead in the lower Yuba River;
- Providing baseline and ongoing monitoring to implement watershed plans to reduce flooding, control erosion, improve water quality and improve aquatic and terrestrial species habitats;
- Identify point and non-point sources of pollution and contamination; and to
- Restore native vegetation, water flows and riparian zones.

#### **b. Goals of the Yuba River Citizen Monitoring Project**

The goals of the Yuba River Citizen Monitoring Project (as adopted August, 2000):

- To design and execute scientifically credible studies which assess the condition of the Yuba River ecosystem;
- To empower citizens to be responsible stewards and decision-makers;
- To identify valued resources and watershed characteristics for setting management goals;
- To identify physical watershed characteristics influencing pollutant inputs, transport and fate;
- To identify the status and trends of biological resources in and around the Yuba aquatic environment;
- To screen for water quality problems;
- To identify pollution sources and potentially illegal activities;
- To establish trends in water quality for waters that would otherwise be un-monitored;
- To evaluate the effectiveness of restoration and management practices;
- To evaluate the effect of a particular activity or structure; and
- To evaluate the quality of water compared to specific water quality criteria.

#### **c. Background**

Phase I of the Project utilized the services of 65 trained citizen volunteers who received in-depth training to sample or test for pH, Dissolved Oxygen, Conductivity, Ambient and Water Temperature, Total Suspended Solids, e-Coli, Total Petroleum Hydrocarbons, Arsenic, Iron, Copper, Zinc, Mercury and Flows. Data on each parameter has been compiled at 21 sites throughout the 1,325 square mile watershed on a monthly basis since October, 2000.



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Sample collection methods, monitoring site locations, parameters, and a training regime have been developed in partnership with the Clean Water Team at the State Water Resources Control Board and the Central Valley Regional Water Quality Control Board. Data evaluation and data results have been and continue to be reviewed and approved by the Yuba Watershed Council's Technical Advisory Sub-Committee (including members from both Regional and State Water Boards and scientific representatives of State Parks, the US Forest Service and UC Davis.)

From a qualitative perspective, the Yuba River Citizen Monitoring Project has been an invaluable element in creating a "**Community of Stewards**" in Nevada, Yuba, Sierra and Placer counties who are not only more aware of their surroundings in a physical sense, but have developed a more sophisticated grasp of the scientific and technical realities of the watershed in which they live.

Additionally, the Yuba River Citizen Monitoring Project has established or enhanced substantial collaborations and interrelationships between a number of agencies and interests. The Project formally informs seven collaborative restoration and planning efforts in the Yuba Watershed and thirteen local, state and federal agencies.

*The Yuba River Citizen Monitoring Project has helped to create a "Community of Stewards" who better understand the scientific realities of their local environment and can participate in a more meaningful way in the dialogue surrounding resource conflicts.*

#### **d. Benchmarks and Accomplishments of Phase I**

The Yuba River Citizen Monitoring Project has met all of its initial benchmarks for success as well as:

- The development and execution of a successful monitoring program utilizing 65 volunteers at 21 monitoring sites throughout the Yuba watershed;
- The identification by River Monitors of enterococci contamination in the South and Middle Yuba Rivers in August, 2001;
- The December, 2001 release of SYRCL's South Yuba River Enterococci Report;
- The successful implementation of a partner program with California Department of Fish and Game to count spring- and fall-run salmon with rotary screwtraps;
- The development of an exhaustive **State of the Yuba** Watershed Assessment (available September, 2002);
- The development of data showing elevated levels of arsenic in TMDL-listed Kanaka Creek;
- Execution of a "Quick Response Team" sampling event on 18 occasions for monitoring response to storm events or reports of water quality contamination;
- The development of system-wide flow data for utilization in FERC re-licensing of hydroelectric facilities;
- The development of a model data reporting database.

#### **e. Justification**



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The Yuba River is one of the hardest working rivers in the Sierra Nevada. According to the Sierra Nevada Ecosystem Project Report (SNEP), it is the most diverted and dammed river in the Sierra Nevada, and its 1,325 square miles of rivers, creeks and tributaries serve as drinking and irrigation water for several million consumers. During summer months, more than 95 percent of normal flows can be diverted out of the middle and south forks of the Yuba into the Bear River for delivery to Placer County residents.

In the 19<sup>th</sup> century, the Yuba River played host to the most damaging and dramatic hydraulic mining practices, which to this day contribute to degraded water quality and increased flood risk. Mercury, arsenic and sediment continue to accumulate behind reservoirs and in riverbeds as a result of these historic practices.

The Yuba River is identified by CALFED as one of the Central Valley's most important opportunities for dramatic ecosystem restoration.

At the same time, however, the Yuba shelters the last remaining wild run of threatened central valley steelhead, as well as sizeable – and possibly the largest remaining – wild runs of endangered spring- and fall-run salmon. It has been identified by CALFED as one of the Central Valley's most important opportunities for ecosystem restoration. Protection and enhancement of this habitat is the subject of several collaborations and an historic dialogue regarding the removal or modification of 26-foot Daguerre dam on the lower Yuba River and the introduction of wild salmon and steelhead to the South and Middle Yuba Rivers above the 261-foot Englebright Dam.

#### **4. IMPLEMENTATION OF PHASE II**

##### **a) Expansion of the Yuba River Citizen Monitoring Project**

Phase II of the Yuba River Citizen Monitoring Project represents an opportunity to expand a successful volunteer monitoring program to include additional parameters and sites that are relevant to new or forthcoming resource issues. These include:

- Continuing to investigate the extent and causes of enterococci contamination in the Yuba River, initially detected by the Yuba River Monitoring Project in summer, 2001;
- Expanding sites to include river and creek segments that may be candidates for TMDL listing;
- Monitoring for Lead and Chromium, in addition to mercury and arsenic.

The Yuba River Citizen Monitoring Project functions under a QAPP approved by the State Water Resources Control Board in September, 2000 and revised in January, 2002. Additionally, an Annual Workplan is developed in collaboration with SWRCB and RWQCB. The WorkPlan for Phase II includes the following changes:

##### ***Addition of 6 Monitoring parameters***

The selection of Monitoring Parameters is described in detail in the Yuba River Citizen Monitoring Project Work Plan (Approved: April 2, 2002). Phase II will include the following parameters consistent with Phase I parameters measured since August 2000. :

1. Temperature (T) measured monthly
2. Dissolved Oxygen (DO) measured monthly
3. Total Suspended Solids (TSS) measured monthly and during and after storm events
4. Hydrocarbons measured monthly and during and after storm events
5. Fecal coliform bacteria (CB) measured monthly and during and after storm events
6. Mercury measured quarterly and during and after storm events
7. Arsenic measured quarterly and during and after storm events
8. Zinc measured quarterly and during and after storm events
9. Copper measured quarterly and during and after storm events
10. Dissolved solids/salt measured monthly and during and after storm events
11. Conductivity measured monthly and during and after storm events
12. Macroinvertebrates sampled in Years 3 and 4
13. pH measured monthly
14. Flow

As the result of input from the Regional Water Quality Control Board and the Yuba Watershed Council, Phase II will add additional parameters:

1. Lead
2. Chromium
3. Enterococci bacteria
4. Turbidity
5. Nitrogen
6. Phosphate

### ***Addition of 8 New Monitoring Sites***

In Phase II, the Yuba River Monitoring Project will add 11 sites and delete 3 sites, for a total of 29 monitoring stations throughout the Yuba watershed:

Site #	Description	Stream Location
1	Above Downieville	North Yuba River
2	Below Downieville	North Yuba River
3	Below Fiddle Creek at Hwy 49	North Yuba River
4	Lavezzola Creek	No. Yuba River tributary



5	Oregon Creek	Middle Yuba River tributary
5B	Middle Yuba above Oregon Ck.	Middle Yuba River
6	Below Colgate Tunnel inflow	Yuba River
7	Below Jackson Meadows Reservoir	Middle Yuba River
8	Above confluence with Kanaka Creek	Middle Yuba River
9	Below confluence with Kanaka Creek	Middle Yuba River
10	Near Indian Springs/Eagle Lakes	So. Yuba River
11	Below Spaulding Reservoir	So. Yuba River
12	Upper Humbug Creek	So. Yuba River Tributary
13	Above Humbug Creek	So. Yuba River
14	Below Humbug Creek	So. Yuba River
15	Purdon Crossing	So. Yuba River
16	Below Deer Creek at Hwy 20	Yuba River
18	Hallwood Blvd.	Yuba River
19	Jones Bar	So. Yuba River
20	Marysville, below water treatment plant	Yuba River
21	Spring Creek	So. Yuba River Tributary
23	Poorman Creek	So. Yuba River Tributary
23B	South Yuba below Washington	So. Yuba River
24	Fiddle Creek	No. Yuba River Tributary
25	Scotchman Creek	So. Yuba River Tributary
26	Shady Creek	So. Yuba River Tributary
27	Kanaka Creek	M. Yuba Tributary
28	Upper South Yuba River, Hampshire Rocks	South Yuba River
28B	Upper South Yuba River, Soda Springs	South Yuba River

### ***b). Develop The Citizens Monitoring Academy***

Using the Yuba River Citizen Monitoring Program as a ***success model***, Phase II of this Program will also serve to expand the capacity of other volunteer monitoring programs by:

- Developing the curriculum and materials for a *Citizens Monitoring Academy* to assist other citizen-based water quality monitoring efforts throughout the CALFED Solution Area in the training, management and retention of citizen volunteers;

- Developing the framework for reproducible watershed-wide citizen monitoring efforts in neighboring watersheds;
- Collaborating with the State Water Resources Control Board and the Regional Water Quality Control Board in developing a protocol for data reporting between citizen-based water quality monitoring efforts and state agencies.

## **5. SUPPORT, COLLABORATION AND INTEGRATION WITH LOCAL DECISION MAKERS**

### **Upper Yuba River Studies Group (UYRSG)**

CALFED Program investigating the introduction of wild salmon and steelhead in up to 80 miles of habitat above 261-foot Englebright Dam. SYRCL leads the “River Team” in this CALFED process and submits collected water quality data to the six study areas for inclusion in evaluations of restoration feasibility.

### **Yuba-Feather Flood Reduction Working Group**

Funded with \$90 million in flood reduction funds from Proposition 13, the Yuba Feather Work Group has developed a plan to triple downstream flood protection in an environmentally restorative manner. SYRCL is the lead conservation partner in this effort and the Yuba River Monitoring Project provides baseline data to planning and implementation efforts.

### **Yuba River Parkway**

The Yuba River Monitoring Project establishes baseline data measurements for the 14-member collaborative overseeing the formation and development of the CALFED-funded Yuba River Parkway.

### **Yuba River Fisheries Technical Work Group (YRFTWG)**

The YRFTWG is a collaboration of local, state and federal partners working to enhance populations of wild spring- and fall-run salmon and steelhead on the lower Yuba River and investigating the removal or modification of 26-foot Daguerre Dam. SYRCL’s Yuba River Monitoring Program includes a multi-year partnership with California Department of Fish and Game to count returning salmon on the river utilizing rotary screwtraps .

### **South Yuba River Coordinated Resource Management Plan**

The Yuba River Monitoring Project provides data for assessment and planning of the South Yuba River Coordinated Management Plan. This ongoing CALFED-funded CRMP was borne of a planning response to SYRCL’s successful effort to include the South Yuba in the State and Federal Wild and Scenic Rivers Act.

### **Yuba River Enterococci Study Team**

Monitoring by the Yuba River Citizen Monitoring Project identified significantly elevated levels of enterococci in the South and Middle Yuba Rivers and lead to a swimming closure throughout the system in August, 2001. The Monitoring Project has partnered with Nevada County Environmental Health to monitor future contamination and assess enterococci testing methods.

### **Yuba Watershed Council Monitoring Committee**

The Yuba River Citizen Monitoring Project is a partner with the Yuba Watershed Council Monitoring Committee to adopt standards and protocols and in scientific and peer review of monitoring data and reports.



### **Yuba River Citizen Monitoring Project**

Since 1999, SYRCL has managed and directed 110 trained volunteer monitors in collecting 14 data types at 21 monitoring stations throughout the 1,325 square mile watershed. The Project provides scientifically valid baseline water quality data to 7 collaborative efforts and 13 local, state and federal agencies.

display of technical and scientific information to agency partners and local interests. SYRCL ensures this by building into the Monitoring Project the following:

- Monthly presentation and data-sharing with the Yuba Watershed Council Monitoring Sub-Committee
- Presentations to the Nevada County Board of Supervisors
- Publication of data and watershed assessments in the *State of the Yuba Watershed Assessment*
- Availability of all monitoring data on the internet
- Submission of all collected data and analysis to the Regional Water Quality Control Board
- Distribution of all special reports to all partners and interested parties

Additionally, as an element of the Yuba River Citizen Monitoring Project, SYRCL has coordinated a number of opportunities to exchange new technical and scientific information:

- During its data collection and evaluation of the enterococci contamination in the Yuba River in August 2001, SYRCL coordinated multi-agency meetings to discuss appropriate remedies to handle the crisis;
- Working closely with the California Department of Health Services and the manufacturers of the Enterolert enterococci testing equipment, SYRCL found that algae present in river water samples could generate false positive signals in the Enterolert assay, leading to warnings by the state to utilize a back-up method to test for enterococci;
- In Phase II, SYRCL will develop training materials and a curriculum for a Citizens Monitoring Academy to share information on management of volunteer based monitoring programs and to coordinate with appropriate state agencies to develop uniform data reporting forms;
- SYRCL coordinated the successful “Mercury, Mines, Rivers and You” Conference in Nevada City in November 2001 which involved 175 agency and public participants

## **7. ADDITIONAL CONSIDERATIONS**

### ***Rural Communities with Financial Hardship***

Sierra and Yuba counties – which comprise more than two-thirds of the monitoring region – qualify as “rural counties with a financial hardship.

Nevada City, California qualifies as a “small community with a financial hardship.”



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***Priority Category I Watershed***

The Lower Yuba River Watershed and the Upper Yuba River Watershed have been designated Priority Category I Watersheds under the California Unified Watershed Assessment.

***Qualifications of SYRCL***

The South Yuba River Citizens League (SYRCL) is the nation's largest single-river organization. Five thousand dues-paying members and 800 business members provide the support for SYRCL's RiverScience, RiverPeople, RiverTeachers, RiverAdvocate and RiverLaw programs. It's annual budget for 2002 is approximately \$1.1 million.

SYRCL is the lead conservation organization participating in a number of critical collaboratives, including the Upper Yuba River Studies Group, the Yuba River Fisheries Technical Work Group, the Yuba Watershed Council, the Yuba River Parkway, and the Yuba-Feather Flood Control Work Group.

SYRCL is also a highly regarded contractual partner implementing restoration programs with the US Fish and Wildlife Service, California Department of Fish and Game, US Environmental Protection Agency and the Yuba County Water Agency.

## PART C – PROPOSED SCOPE OF WORK

### 1. BACKGROUND AND GOALS

The Yuba River Citizen Monitoring Project has a single mission – to educate and involve a “community of stewards” who produce technically and scientifically valid data in support of the objectives of the community, CALFED, the State Water Resources Control Board and the Regional Water Quality Control Board. These include but are not limited to:

- The introduction of salmon and steelhead above Englebright Dam on the Yuba River;
- The restoration of salmon and steelhead in the lower Yuba River;
- Providing baseline and ongoing monitoring to implement watershed plans to reduce flooding, control erosion, improve water quality and improve aquatic and terrestrial species habitats;
- Identify point and non-point sources of pollution and contamination; and to
- Restore native vegetation, water flows and riparian zones.

The goals of the Yuba River Citizen Monitoring Project (as adopted August, 2000):

- To design and execute scientifically credible studies which assess the condition of the Yuba River ecosystem;
- To empower citizens to be responsible stewards and decision-makers;
- To identify valued resources and watershed characteristics for setting management goals;
- To identify physical watershed characteristics influencing pollutant inputs, transport and fate;
- To identify the status and trends of biological resources in and around the Yuba aquatic environment;
- To screen for water quality problems;
- To identify pollution sources and potentially illegal activities;
- To establish trends in water quality for waters that would otherwise be un-monitored;
- To evaluate the effectiveness of restoration and management practices;
- To evaluate the effect of a particular activity or structure; and
- To evaluate the quality of water compared to specific water quality criteria.

### 2. PROPOSED WORK TO BE PERFORMED (Start with Task 4.)

#### **Task 4. Execute Phase II of the Yuba River Citizen Monitoring Project.**

*Success Criteria: Recruitment and training of 85 citizen monitors. Scientifically valid data collection at 29 monitoring stations for two years.*

- 4.1 Coordinate revision of Yuba River Citizen Monitoring Project Work Plan for Phase II. Revised Work Plan will include 29 monitoring stations (increase from 21) throughout the watershed and 20 monitoring parameters (increase from 14).
- 4.1.1 Coordinate meetings with the Yuba Watershed Council Monitoring Subcommittee to review revised Monitoring Work Plan

- 4.1.2 Ensure participation and approval of revised Monitoring Work Plan by State Water Resources Control Board and Regional Water Quality Control Board.
- 4.1.3 Meet with SWRCB Clean Water Team to discuss and finalize revised Work Plan.
- 4.2. Coordinate update of revised Quality Assurance Project Plan for Phase II Yuba River Citizen Monitoring Project.
  - 4.2.1. Coordinate meetings with the Yuba Watershed Council Monitoring Subcommittee to review revised QAPP
  - 4.2.2. Meet with SWRCB Clean Water Team to discuss revised QAPP for Phase II.
  - 4.2.3. Ensure approval of revised QAPP by State Water Resources Control Board and Regional Water Quality Control Board
- 4.3. Conduct three to six trainings for 65 existing volunteer monitors to sample for new parameters.
- 4.4. Recruit and train 20 new volunteers to sample additional sites under revised Work Plan.
  - 4.4.1. Solicit via e-mail, through 3 newsletters and through public announcements new volunteer monitors
  - 4.4.2. Accept and review applications for volunteer monitoring positions
  - 4.4.3. Conduct eight to twelve trainings for new monitors to integrate with existing and new monitoring
- 4.5. Landowner Agreements.
  - 4.5.1 Obtain signed agreements from private landowners to allow access to property to conduct monitoring at new monitoring stations, where needed.
  - 4.5.2 Obtain updated agreements from existing private landowners already allowing access to property to conduct monitoring at existing monitoring stations.
  - 4.5.3 Obtain updated agreements from local, state and federal public agencies to conduct monitoring at monitoring stations on public lands
- 4.6 Conduct water quality sampling according to the approved revised Work Plan developed in Task 4.1 and the revised QAPP developed in Task 4.2.
  - Temperature (T) measured monthly
  - Dissolved Oxygen (DO) measured monthly
  - Total Suspended Solids (TSS) measured monthly and during and after storm events
  - Hydrocarbons measured monthly and during and after storm events
  - Fecal coliform bacteria (CB) measured monthly and during and after storm events
  - Mercury measured quarterly and during and after storm events
  - Arsenic measured quarterly and during and after storm events
  - Zinc measured quarterly and during and after storm events
  - Copper measured quarterly and during and after storm events
  - Dissolved solids/salt measured monthly and during and after storm events
  - Conductivity measured monthly and during and after storm events
  - Macroinvertebrates sampled in Years 3 and 4
  - pH measured monthly
  - Flow

- Lead
- Chromium
- Enterococci bacteria
- Turbidity
- Nitrogen
- Phosphate
- 4.7 Execute weekly enterococci monitoring for reporting to Nevada County Environmental Health
  - 4.7.1 Produce report on enterococci, algae and phosphates data for distribution to Enterococci Study Team
- 4.8 Implement SYRCL's Management and Retention Program to maintain 88 percent annual retention rate of trained volunteers
  - 4.8.1 Conduct three volunteer appreciation events per year
  - 4.8.2 Present Awards to existing and new volunteers to show value for their participation

#### **Task 5. Evaluation and Public Presentation of monitoring data.**

- Success criteria: Publication and distribution of 2<sup>nd</sup> State of the Yuba Watershed Assessment*
- 5.1 Lead monthly meetings of the Yuba Watershed Council Monitoring Sub-committee to share information, review data and revise work plans accordingly
  - 5.2 Evaluate existing methods of data storage and presentation and prepare recommendations to Clean Water Team as to optimal data storage and presentation techniques
  - 5.3 Develop slide presentation of monitoring data and assessment to educate residents and decision-makers in the watershed
  - 5.4 Develop questionnaire to solicit the knowledge gained by by members of the public exposed to data presentation
  - 5.5 Coordinate, publish and distribute 2<sup>nd</sup> State of the Yuba Watershed Assessment
    - 5.5.1 Develop State of the Yuba Watershed Assessment Committee
    - 5.5.2 Coordinate between 4 and 6 meetings to review State of the Yuba data
    - 5.5.3 Publish 500 copies of State of the Yuba Watershed Assessment
    - 5.5.4 Distribute State of the Yuba Watershed Assessment to stakeholders, agencies and interested members of the public
    - 5.5.5 Coordinate one public meeting to present State of the Yuba

#### **Task 6. Develop and Execute Data Sharing and Integration Plan with existing planning resource planning efforts in the Yuba Watershed.**

*Success Criteria: Fully informed CRMP process and integrated information sharing with all existing resource collaborations in the Yuba Watershed.*

- 6.1 Ongoing integration of Monitoring and Assessment data with South Yuba River Coordinated Resource Management Plan. (Funded by CALFED)
  - 6.1.1 Coordinate quarterly meetings with SYR CRMP to inform South Yuba River Coordinated Resource Management Plan.
- 6.2 Integrate Monitoring and Assessment data with Nevada County Environmental Health efforts to remediate enterococci contamination in the South Yuba River.

- 6.3 Integrate Monitoring and Assessment data with Yuba County Water Agency
- 6.4 Integrate Monitoring and Assessment data with the Yuba River Fisheries Technical Work Group
- 6.5 Integrate data and assessment with Clean Water Team

**Task 7. Develop tools to utilize the Yuba River Citizen Monitoring Program as a “success model” to assist in the expansion of capacity of other volunteer monitoring programs.**

*Success Criteria: Curriculum development for Citizens Monitoring Academy and Conference. Standardized data reporting and volunteer management protocols developed with the Clean Water Team.*

- 7.1 Develop curriculum and materials for a *Citizens Monitoring Academy* to assist other citizen-based water quality monitoring efforts in the training, management and retention of citizen volunteers, including simple, non-technical handbooks for the layperson on:
  - 7.1.1 Recruiting and Keeping Citizen Monitors
  - 7.1.2 Training Citizen Monitors
  - 7.1.3 Monitoring Protocols for the Layperson
  - 7.1.4 Choosing and Taking Care of Equipment
  - 7.1.5 A Volunteer’s Guide to Quality Control
  - 7.1.6 Managing on Monitoring Day
  - 7.1.7 Useful Data Presentation Techniques for Volunteers
  - 7.1.8 Volunteer Safety
  - 7.1.9 Streamwalk Safety
- 7.2 Plan and execute a two-day Citizens Monitoring Academy Conference for volunteer monitoring programs from throughout the CALFED Bay-Delta region
- 7.3 Collaborate with the State Water Resources Control Board and the Regional Water Quality Control Board in developing a protocol for data reporting between citizen-based water quality monitoring efforts and state agencies.

### 3. **TARGET COMPLETION DATES**

Task No. Deliverables	Target Completion Dates
<b>Task 1: Project Administration</b>	
1.2 Quarterly/Monthly Progress Reports	<i>(note: must be submitted 10<sup>th</sup> of the month)</i>
1.5 Contract Summary Form	<i>(note: must be completed within 3 months of contract execution)</i>
1.6 List of subcontracted tasks, Good Faith Effort documents, quarterly/monthly Utilization Reports	
1.7 Subcontractor Documentation	
1.8 Expenditure/Invoice Projections	
1.9 Project Survey Form	<i>(note: must be completed prior to final payment and at the end of the project)</i>
<b>Task 2: CEQA/NEPA Documents and Permits, if applicable</b>	N/A



2.1 CEQA/NEPA Documentation	
2.2 Permits	
<b>Task 3: Quality Assurance Project Plan, if applicable</b>	<i>SAP/QAPP. Completed for Phase I. Revision for Phase II by September 1, 2003</i>
<b>Task 4: Execute Phase II of Yuba River Citizen Monitoring Project</b>	
4.1 Revised Work Plan for Phase II	<i>September 1, 2003</i>
4.2 Revised QAPP for Phase II	<i>September 1, 2003</i>
4.3 Training materials	<i>September 1, 2003</i>
4.5 Landowner Agreements	<i>September 1, 2003</i>
4.6 Monitoring Data from 29 stations	<i>Monthly beginning September 1, 2003 through August 1, 2005 Peak flow events as needed Pollution report monitoring as needed</i>
4.7.1 Report on data and sources of enterococci contamination	<i>October 1, 2004</i>
<b>Task 5: Evaluation and Presentation of Data</b>	
5.2 Report on Data Storage and Presentation	<i>January 15, 2004</i>
5.3 Slide Presentation on data and assessment	<i>June 15, 2004</i>
5.4 The 2 <sup>nd</sup> State of the Yuba Watershed Assessment	<i>September 1, 2004</i>
<b>Task 6: Data Sharing and Integration</b>	<i>Ongoing</i>
6.1 Data Integration Report to South Yuba River CRMP	<i>November 1, 2003</i>
6.2 Data Integration Report to Nevada County Environmental Health	<i>November 1, 2003</i>
6.3 Data Integration Report with Yuba County Water Agency	<i>November 1, 2003</i>
<b>Task 7. Success Model: Citizens Monitoring Academy</b>	
7.1 Curriculum for Citizens Monitoring Academy	<i>November 1, 2003</i>
7.2 Citizen Monitoring Conference	<i>March 1, 2004</i>
7.3 Protocols for Management	<i>June 1, 2004</i>
<b>Task 8: Draft and Final Reports</b>	
#.1 Draft Report	<i>September 1, 2005</i>
#.2 Final Report	<i>November 1, 2005</i>

**PART D1 - BUDGET SUMMARY SHEET – TASK BUDGET BREAKDOWN (Parts D1 and D2 combined not to exceed 2 pages)**

	Proposition 13 Funds	Other Project Funds	Total Budget
1. Task 1 – Project Administration	\$ 19,000	\$14,000	\$33,000
2. Task 2 – CEQA/NEPA Documents and Permits	0	0	0
3. Task 3 – Quality Assurance Project Plan	\$2,750	\$2,750	\$5,500
4. Task 4 -- Execute Phase II of Yuba River Citizen Monitoring Project	\$132,505	\$106,710	\$239,215
5. Task 5 -- Evaluation and Presentation of Data	\$22,750	\$17,750	\$40,000
6. Task 6 -- Data Sharing and Integration	\$8,000	\$28,000	\$36,000
7. Task 7 -- Success Model: Citizens Monitoring Academy	\$25,000	\$15,000	\$40,000
8. Task 8 -- Draft and Final Reports	\$3,000	\$2,000	\$5,000
TOTAL BUDGET	\$215,005	\$198,210	\$413,215

**PART D2 - BUDGET SUMMARY SHEET – LINE ITEM Budget (Parts D1 and D2 combined not to exceed 2 pages)**

	Proposition 13 Funds	Other Project Funds	Total Budget
1. Personnel Services	\$114,505	\$40,000	\$154,505
2. Operating Expenses			
3. Property Acquisitions			
a. Monitoring Equipment	\$9,000	\$6,000	\$15,000
b. Monitoring Supplies	\$14,000	\$4,000	\$18,000
c. Portable assets	-	-	-
d. Electronic data software/hardware	\$3,500	\$2,000	\$5,500
e. Processing equipment			
f. Miscellaneous	0	0	0
4. Professional and Consultant Services	\$16,000	\$104,000	\$120,000
5. Contract Laboratory Services	\$39,000	\$28,000	\$67,000
6. Construction Expenses	0	0	0
7. General Overhead	\$19,000	\$14,210	\$33,210
8. TOTAL BUDGET	\$215,005	\$198,210	\$413,215

Sierra Nevada Alliance: SYRCL is a partner in an EPA grant to the Sierra Nevada Alliance to build and train local water quality monitoring organizations in three distinct Sierra watersheds in the next two years.

*Match provided to the Yuba River Citizen Monitoring Project* = \$18,000

California Department of Fish and Game. SYRCL's Yuba River Citizen Monitoring Project employs four individuals responsible for maintenance and monitoring of rotary screw traps on the lower Yuba River.

*Match provided to the Yuba River Citizen Monitoring Project* = \$135,000

Private funding sources. SYRCL's Yuba River Citizen Monitoring Project seeks small private donations from among it's 5,000 members to conduct monitoring in the watershed.

*Match provided from private sources* = \$45,210

**PART E – PROJECT MAP (single 2- sided 8” x 11’, or single 1-sided 11” x 17” page maximum)**

Provide a map of your project area, if appropriate. This can also be a chart or outline if your proposed project is not area specific.

## PART F – ENVIRONMENTAL INFORMATION FORM (3 pages maximum)

### ENVIRONMENTAL INFORMATION FORM

#### NEPA/CEQA

1. Will this project require compliance with CEQA, NEPA, or both? Yes \_\_\_\_\_ No ✓
2. If you checked “no” to question 1, please explain why compliance is not required for the actions in this proposal.  
**No land use changes. No construction.**
3. If the project will require CEQA and/or NEPA compliance, identify the lead agency(ies).

CEQA Lead

Agency

NEPA Lead

Agency

4. Please check which type of document will be prepared.

#### CEQA

Categorical Exemption

Initial Study

Environmental Impact

Report

#### NEPA

Categorical Exclusion

Environmental Assessment/FONSI

Environment Impact Statement

If you anticipate relying on either or both the Categorical Exemption or Categorical Exclusion for this project, please specifically identify the exemption and/or exclusion that covers this project. (Example: Fish and Wildlife Service Manual at 516 DM 6 Appendix 1.4 Categorical Exclusions Section B Resources Management: (1) Research, inventory, and information collection activities directly related to the conservation of fish and wildlife resources.)

5. If the CEQA/NEPA process is not complete, please describe the estimated timelines and cost for the process and the expected date of completion.
6. If the CEQA/NEPA document has been completed:

What is the name of the document? \_\_\_\_\_

Please attach a copy of the CEQA/NEPA document cover page to the application.

Please indicate what permits or other approvals may be required for the activities contained in your proposal and which have already been obtained. Please check all that apply.

<b>LOCAL PERMITS AND APPROVALS</b>	Needed?	Obtained?
Conditional use permit	No	
Variance	No	
Subdivision Map Act	No	
Grading permit	No	
General plan or Local Coastal Program amendment	No	
Specific plan approval	No	
Rezone	No	
Williamson Act Contract cancellation	No	
Local Coastal Development Permit	No	
Other	No	
<b>STATE PERMITS AND APPROVALS</b>	Needed?	Obtained?
Scientific collecting permit	No	
CESA compliance: 2081	No	
CESA compliance: NCCP	No	
1601/03	No	
CWA 401 certification	No	
Coastal development permit	No	
Reclamation Board approval	No	
Notification of DPC or BCDC	No	
Other	No	
<b>FEDERAL PERMITS AND APPROVALS</b>	Needed?	Obtained?
ESA compliance Section 7 consultation	No	
ESA compliance Section 10 permit	No	
Rivers and Harbors Act	No	



Application #77

CWA 404	No	
Other: EPA Quality Assurance Program Plan	Yes	✓
<b>PERMISSION TO ACCESS PROPERTY</b>		
Permission to access city, county or other local agency land. If “yes,” indicate the name of the agency: <u>Yuba County Water Agency</u>	Yes	✓
Permission to access State land. If “yes,” indicate the name of the agency: <u>California Department of Parks and Recreation</u>	Yes	✓
Permission to access federal land. If “yes,” indicate the name of the agency: <u>Tahoe National Forest, Bureau of Land Management</u>	Yes	✓
Permission to access private land. If “yes,” indicate the name of the landowner (if multiple landowners, indicate how many individuals will be involved and what percentage have already granted permission: <u>Six individual private property owners have granted written permission to access sections of river and stream via access through their property</u>	Yes	✓

## PART G – LAND USE QUESTIONNAIRE (2 pages maximum)

### PART - LAND USE QUESTIONNAIRE

1. Do the actions in the proposal involve construction or physical changes in the land use? Yes \_\_\_\_\_ No ✓

If you answered “yes” to # 1, describe what actions will occur on the land involved in the proposal.

If you answered “no” to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only). **Water quality and landscape monitoring; education of local citizens in scientific monitoring; development of model program materials to expand citizen-based watershed wide water monitoring to other watersheds.**

2. How many acres of land will be subject to a land use change under the proposal?  
0

3. What is the current land use of the area subject to a land use change under the proposal? What is the current zoning and general plan designation(s) for the property? Does the current land use involve agricultural production?

- a) Current land use n/a  
b) Current zoning n/a  
c) Current general plan designation n/a  
d) Does current use involve agricultural production? Yes \_\_\_\_\_ No \_\_\_\_\_

4. Is the land subject to a land use change in the proposal currently under a Williamson Act contract?

Yes \_\_\_\_\_ No n/a

5. What is the proposed land use of the area subject to a land use change under the proposal?

6. Will the applicant acquire any land under the proposal, either in fee (purchase) or through a conservation easement? Yes \_\_\_\_\_ No ✓

- a) If you answered “yes” to 6, describe the number of acres that will be acquired and whether the acquisition will be of fee title or a conservation easement:

- b) Total number of acres to be acquired under proposal

\_\_\_\_\_



c) Number of acres to be acquired in fee

d) Number of acres to be subject to conservation easement

7. For all lands subject to a land use change under the proposal, describe what entity or organization will manage the property and provide operations and maintenance services.

8. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal? Yes ☒ No ☐  
**Written permissions obtained from property owners**

9. For land acquisitions (fee title or easements), will existing water rights be acquired? Yes ☐ No ☒

10. Does the applicant propose any modifications to the water right or change in the delivery of the water? Yes ☐ No ☒

If "yes" to 10, please describe the modifications or changes.

## **PART H – SUPPORTING DOCUMENTATION (10 pages maximum)**

Include an example of notifications of your intended application to local governments and tribes in whose jurisdiction your project takes place, and a list of their responses, if available. While response is not required, your proposal will be stronger if it contains both notification and responses. Please note that response letters (but not the example and list) are *in addition to* the page allowance.

Also include here summaries of qualifications for the principals and major partners expected to be involved with implementing your proposal. DO NOT include newsletters, brochures, photographs or other promotional materials that are not directly pertinent to your proposal specifics.

### **NOTIFICATIONS SENT TO**

Nevada County Board of Supervisors  
Nevada County Environmental Health Services  
Yuba County Water Agency  
Nevada Irrigation District  
Yuba Watershed Council (representing 32 local, state and federal signatories)

### **RECOMMENDATIONS AND ENDORSEMENTS OF THIS PROPOSAL SENT UNDER SEPARATE COVER FROM**

Nevada County Environmental Health Services  
Yuba County Water Agency  
Nevada Irrigation District  
Yuba Watershed Council  
California Department of Fish and Game  
US Fish and Wildlife Service

### **COLLABORATING PARTNERS and ADVISORS**

To SYRCL RiverScience Programs and Yuba River Citizen Monitoring Project

- **John Nelson** - California Department of Fish and Game (CDFG)
- **Mike Tucker** - Mike works for the National Marine Fisheries Service (NMFS). He is a Graduate of the University of Wisconsin with a B.S. in Wildlife Ecology. His professional experience includes Colorado Division of Wildlife, and USFWS in Grand Junction and field research involving the Red Bluff Research Pumping Plant and Diversion Dam. With NMFS since April, 2000.
- **Ray Patton** - California Department of Parks and Recreation
- **Craig Fleming** - USFWS. Habitat Restoration Coordinator for the Anadromous Fish Restoration Program for US Fish and Wildlife Service. Craig is a Fishery Biologist who has been working in the Central Valley of California on salmonid issues since 1990.
- **Terry Mills** - CALFED p: (916)651-6468 f: (916)654-9780 Terry has a BS in Wildlife and Fisheries Biology from UC Davis. He worked for with the Yuba County Agriculture Commission then as a Fishery Biologist with the California Department of Fish and Game. After working throughout much of the north State he accepted his position with the CALFED Bay-Delta Program after competing 25 years with the Department of Fish and Game. He has authored and coauthored numerous technical and scientific reports addressing northern California salmon and steelhead and was the primary author of the CALFED Ecosystem Restoration Program Plan.

- **Charles Alpers** - USGS. Research Chemist with USGS in Sacramento since 1991. A.B. Geology Harvard, 1980; Ph.D. Geology Berkeley, 1986. Nationally and internationally recognized expert on metal transport and the environmental impacts of mining.
- **Steve Edmonson** - Steve has a BS in General Biological Sciences; emphasis Marine Biology from the University of Maryland and a MS in Interdisciplinary Environmental Studies with and emphasis in Aquatic Ecology from Johns Hopkins University. He is currently a Fishery Biologist Team Leader with the National Marine Fisheries Service where he coordinates activities of an interdisciplinary team of specialists in the area of habitat restoration, instream flows, water rights, and hydroelectric generation.
- **Syd Brown** - Sydney is a Senior Geologist (specialist), Resource Management Division for the Department of Parks and Recreation, headquarters office, Sacramento. She is also the Department of Parks and Recreation's Technical Representative on Sediment Management and Staff Geologist since November, 1980. She earned her undergraduate degree in Geology from CSU, Sacramento as well as a Secondary Teaching Credential. Her interests include landscape and river restoration and watershed management. Areas of expertise include landslides, sediment management, beach processes and fluvial geomorphology. Syd has been a resident of Nevada County since 1983 and lives in the Rock Creek watershed (a tributary to the South Yuba).
- **David Yargas** - Environmental Defense (ED). Senior Analyst with ED's west coast regional office in Oakland, CA. He has worked with the organization since 1986 on issues involving protection and restoration of aquatic resources in the West. Beginning in September 2000, he will oversee the Sierra Rivers and Watersheds Project, a new initiative of ED based in Truckee, CA. Yargas holds a B.A. in Economics from U.C. Davis and M.S. in Energy and Resources from U.C. Berkeley.
- **Jim McKeivitt** - James (Jim) is a Fish and Wildlife Biologist recently retired, after 30 years with the U.S. Fish and Wildlife Service. While at the USFWS he worked in the Ecological Services/Environmental Planning-Regulation arena. Jim also served as Field Office Supervisor for the Sacramento Field Office and as Program Manager for the Central Valley Fish and Wildlife Restoration Program. He is now the Senior Biologist for North Fork Associates, a local environmental consulting firm and represents the South Yuba River Citizens League (SYRCL) on the River Team. He has been involved with the Yuba River for about 20 years as a fisherman, and through various water resource and restoration projects.
- **Les Nicholson** - Nevada Irrigation District p: (530)273-8751 f: (530)273-5459 Les and his wife Sheila have been married for 30 years. They have a son, Justin, daughter, Sabrina and granddaughter Brianna (AKA) Sugar Bear. Les is a Viet Nam Combat Vet 1968-1969. He has worked for the Nevada Irrigation District for 31 years. His father worked for NID for 44 years. Les has a degree in Business Management and Supervision and Applied Ag Science from Sierra College. He is the Manager of the District Yuba River Project FERC 2266 Les has managed the District water and power supplies on the Middle and South Forks of the Yuba River and all of the tributaries to those watersheds during his years with the District. It is NID's goal to manage the resources for the maximum benefit of multiple competing uses. NID is one of the oldest Water Districts in California whose roots date back to the 1800s. NID's water rights are some of the oldest in the State, and they consider them their 'Crown Jewels'.
- **Curt Aikens** - Curt has been an Assistant Administrator for the Yuba County Water Agency for the past three years. Main projects include the YCWA Supplemental Flood Control Program to reduce the risk of flood for an area that has been historically devastated by floods. Curt has also been involved in fishery related issues on the Yuba River. He has a BS in Mechanical Engineering from UC Davis and an MBA from Golden Gate University.